IN THE CLAIMS

Please amend the claims as follows.

1. (Original) Apparatus for correlating a sequence of received samples with chip values of a locally generated sequence for one of a plurality of spreading rates, the apparatus comprising:

a first set of combiners configured as a first level of a tree structure to receive the sequence of received samples in groups, each combining a group of at least two samples based on corresponding chip values of the locally generated sequence to generate a correlation value for the group at the first level; and

a second set of combiners configured as one or more additional levels of the tree structure, wherein, each combiner of the second set combines a group of at least two correlation values of a previous level of the tree structure to generate a correlation value for the group at a current level of the tree structure, and

wherein each combiner of the first and second sets comprises an output tap that enables the corresponding correlation value to be read out of the tree structure for one of the plurality of spreading rates.

2. (Original) The invention as recited in claim 1, wherein each of the first set of combiners is an add/subtract logic unit.

3. (Currently Amended) The invention as recited in claim 2, wherein for each add/subtract logic unit the chip values dictate whether the corresponding samples are inverted prior to combining.

4. (Original) The invention as recited in claim 1, wherein each of the second set of combiners is an adder.

5. (Currently Amended) The invention as recited in claim 1, wherein the plurality of spreading rates includes a maximum spreading rate N that is of length of X^M, where X and M are is a-positive integers, and each other of the plurality of spreading rates is less than the maximum spreading rate N and is of length X^m, $1 \leq m < M$.

6. (Original) The invention as recited in claim 5, wherein each of the first set of combiners is an add/subtract logic unit that combines X input samples based on X chip values of the

5   locally generated sequence, and each of the second set of combiners is an adder, each adder receiving X correlation values for a group from the previous level.

7.   (Original) The invention as recited in claim 5, wherein X is 2.

8.   (Original) The invention as recited in claim 1, wherein the apparatus is embodied in a circuit.

10 9.   (Original) The invention as recited in claim 8, wherein the circuit is embodied in an integrated circuit.

10.   (Original) The invention as recited in claim 8, wherein the circuit is included in a receiver of a code-division, multiple access communication system.

11.   (Original) A method of correlating a sequence of received samples with chip values
15 of a locally generated sequence for one of a plurality of spreading rates, the method comprising the steps of:

a) combining, at a first level of a tree structure, groups of at least two received samples based on corresponding chip values of the locally generated sequence to generate a correlation value for each group at the first level; and

20 b) combining, at one or more additional levels of the tree structure, a group of at least two correlation values of a previous level of the tree structure to generate a correlation value for the group at a current level of the tree structure, and

c) providing a correlation value of a group at a corresponding output tap of the tree structure for one of the plurality of spreading rates.

25 12.   (Currently Amended) The invention as recited in claim 11, wherein the plurality of spreading rates includes a maximum spreading rate N that is of length of X^M, where X is aand M are positive integers, and each other of the plurality of spreading rates is less than the maximum spreading rate N and is of length X^m, $1 \leq m < M$.

13.   (Original) The invention as recited in claim 11, wherein the method is embodied in
30 steps of a processor in n integrated circuit.

14.   (Original) The invention as recited in claim 11, wherein the method is embodied in a processor of a receiver in a code-division, multiple access communication system.

5   15.   (Original) A computer-readable medium having stored thereon a plurality of instructions, the plurality of instructions including instructions which, when executed by a processor, cause the processor to implement a method for correlating a sequence of received samples with chip values of a locally generated sequence for one of a plurality of spreading rates, the method comprising the steps of:

10   a) combining, at a first level of a tree structure, groups of at least two received samples based on corresponding chip values of the locally generated sequence to generate a correlation value for each group at the first level; and

          b) combining, at one or more additional levels of the tree structure, a group of at least two correlation values of a previous level of the tree structure to generate a correlation value for the
15   group at a current level of the tree structure, and

          c) providing a correlation value of a group at a corresponding output tap of the tree structure for one of the plurality of spreading rates.